International Nuclear Safety Center

Monthly Report

(Period Ending 31 March 1999)

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This report is available on the Internet http://www.insc.anl.gov

Current Items:

Contract Developments with the RINSC - This month the formal close-out documents for all open Work Orders for RINSC activities, ten in all, through the Research and Development Institute of Power Engineering (RDIPE/NIKIET) were signed in Russia, and eight new Work Orders, initiated separately with the RINSC to complete the unfinished work, were signed in Russia. All of these documents are currently in transit to the US for final execution. The new Work Orders are being implemented under a Basic Ordering Agreement (BOA) that was signed by ANL and the RINSC in August 1998. The effective date for all of these documents is 1 March 1999.

RINSC Independent Building Access Delayed by Six Weeks - Construction activities that would provide a separate entrance for the RINSC and move its office space outside of the security perimeter of the Research and Development of Power Engineering (RDIPE/NIKIET) have been delayed by bad weather. The activity was planned for completion on 1 April 1999 but snow and cold weather in Moscow have caused that date to slip to May. At the present time, no meetings between US visitors and the RINSC are being held at the Russian Center.

OECD Nuclear Energy Agency(NEA) Releases Report on Review of MINATOM Nuclear Safety Research Strategic Plan - On 19 March, the NEA released a report by the international review group that provided an independent expert assessment of the second draft of the nuclear safety research strategic Plan of Russia. The report was unofficially transmitted to MINATOM and the USINSC and the RINSC at the end of February. The Plan was developed by the RINSC, with assistance by the USINSC.

This draft was also circulated within Russia for comments. The RINSC is now making improvements to the Plan based on comments received from the USINSC, the Russian reviewers, and the NEA international review group. The next version is expected in May 1999.

US and Russian Officials Release Joint Safety Plan of USINSC and RINSC - On 24 March, U.S. Secretary of Energy Bill Richardson and Russian Minister of Atomic Energy Yevgeniy Adamov met in Washington, DC and released a joint nuclear safety research plan for the USINSC and the RINSC. This plan complements the MINATOM Nuclear Safety Strategic Research Plan described above. The goal of the Plan is to improve nuclear safety technology and the nuclear safety culture in both countries.

Current Items: (cont'd)

Joint Project on RELAP Validation: First Two Phases Reach Completion - The Joint Project on RELAP Validation is focused on the use of RELAP5 in the analysis of VVER and RBMK reactors. During the first two phases of the project, a prioritized list of phenomena important to safety analyses of these reactors was developed and a review was made of available experiment data which could be used to define ten to twelve standard problems for each reactor type which could be used for validation of the RELAP5 code for some of these phenomena. An initial standard problem was analyzed by a USINSC team and a RINSC team for each reactor type during the first phase to demonstrate our ability to exchange information on a regular basis and compare results.

RINSC has completed the task of revising their web site to accommodate USINSC comments. This completed the last remaining RINSC tasks in Phases 1 and 2. During Phase 3, six more standard problems for each of the two reactor types will be analyzed by USINSC and RINSC teams. These problems will cover those phenomena of highest importance to safety for which there are adequate experiment data. The data and results for all phases are to be posted on the RINSC world-wide-web site.

As part of Phase 3, the USINSC is taking the lead role in assembling reports which compare the USINSC and RINSC analyses of Phase 1 standard problems V1 and R1.

RINSC Computing Center Scheduled to Receive RELAP-3D - In February the RINSC signed an agreement with the INEEL to host the usage of RELAP-3D in Russia. The payment for this service, using only Russian funds, was made to INEEL this month, and a schedule is now being set to install the code on the RINSC ORIGEN 200 mini-computer by early May, and have INEEL conduct training for Russian, Lithuanian and Ukrainian users by the end of June. The Center is also arranging for remote access to this code by the personnel who receive this training.

Activities Calendar:

4-9 April *RELAP Validation* - Jordi Roglans will conduct a progress review meeting in Moscow with the Team Leaders from Joint Project on RELAP Validation.

12-17 April *Inter-granular Stress Corrosion Cracking in RBMKs* - Tom Moran will attend a meeting in Vienna on IGSCC in RBMK Reactors.

Activities Calendar: (cont'd)

17-24 April — *Joint Project Coordination* - Joe Braun will be in Moscow for one week to plan the continuation of Joint Projects on Coupled Codes, Severe Accident Management, Advanced Structural Analysis, and Material Properties.

10-15 May — *Severe Accident Management* - Bruce Spencer to will be in Moscow to plan continuation of the Joint Project on Severe Accident Management Studies.

Week of July 26 — *International RELAP Users Group (IRUG) Meeting* - Russian users of RELAP-3D will attend the next meeting of IRUG in Park City, Utah. A follow-up meeting is tentatively scheduled to occur in Obninsk, Russia in October as an adjunct to the INSP Analysis Forum.

July-August — *Semi-Annual Meeting of USINSC/RINSC* - The meeting will be timed to allow Russian visitors to attend IRUG (above).